

BELAIR

CLEAR ACRYLIC BARRIERS SPECIFICATION SHEET

Belair offers two forms of clear acrylic surface mounted barriers: freestanding, and bracket mounted.



Freestanding Barriers

For clients who want flexibility in placement, and do not want to damage their surface with tape or screws



Bracket Mounted Barriers

For clients who want fixed placement of their barriers that will not move when touched

HAZARDS

This material is classified as not hazardous under USHA regulations. Under normal conditions of use, this product is not expected to create any unusual industrial hazards. Irritating gases/fumes may be given off during burning or thermal decomposition. Contact with hot material will cause thermal burns.

COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Characterization: 100% Polymethyl methacrylate (PPMA) [CAS# 9010-88-2]

PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid sheets
Color:	Clear
Melting Point:	300 °F
Flash Point:	689 °F
Auto-ignition Temperature:	833 °F
Relative Density:	1.19
Solubility:	Insoluble

ECOLOGICAL INFORMATION

Persistence & Degradability:	This product is non-biodegradable
Bioaccumulation:	This solid product has a low potential for bioaccumulation

PHYSICAL	TEST METHOD	UNITS	OPTIX
Specific Gravity/Relative Density	ASTM D-792 / ISO 1183		1.19
Optical Refractive Index	ASTM D-542 / ISO 489/A		1.49
Light Transmission - Total	ASTM D-1003 / ISO 13468-1	%	92
Light Transmission - Haze	ASTM D-1003 / ISO 14782	%	2
Sound Transmission	ASTM E90 / E413	db	27
Water Absorption	ASTM D-570 / ISO 62	% By wt	0.4
Mold Shrinkage	ASTM D-955	mills/in	2-6

CHEMICAL	TEST METHOD	UNITS	OPTIX
Resistance to Stress - Critical Crazing Stress to: Isopropyl Alcohol	ARTC Modification of MIL-P6997	psi	900
Resistance to Stress - Critical Crazing Stress to: Lacquer Thinner	ARTC Modification of MIL-P6997	psi	500
Resistance to Stress - Critical Crazing Stress to: Toluene	ARTC Modification of MIL-P6997	psi	1300
Resistance to Stress - Critical Crazing Stress to: Solbesso 100	ARTC Modification of MIL-P6997	psi	1600

MECHANICAL	TEST METHOD	UNITS	OPTIX
Tensile Strength	ASTM D-638 / ISO 527	psi	11,030
Tensile Elongation - Max.	ASTM D-638 / ISO 527	%	5.8
Tensile Modulus of Elasticity	--	psi	490,000
Flexural Strength	ASTM D-790 / ISO 178	psi	17,000
Flexural Modulus of Elasticity	ASTM D-790 / ISO 178	psi	490,000
Izod Impact Strength - Molded Notch	ASTM D-256 / ISO 180	ft-lb/in Notch	0.4
Izod Impact Strength - Milled Notch	ASTM D-256 / ISO 180	ft-lb/in Notch	0.28
Tensile Impact Strength	ASTM D-1822	ft-lb/in ²	20
Abrasion Resistance - Change in Haze 0 Cycles	ASTM D-1044 / ISO 9352	Haze, %	0
Abrasion Resistance - Change in Haze 10 Cycles	ASTM D-1044 / ISO 9352	Haze, %	11.2
Abrasion Resistance - Change in Haze 50 Cycles	ASTM D-1044 / ISO 9352	Haze, %	24
Abrasion Resistance - Change in Haze 200 Cycles	ASTM D-1044 / ISO 9352	Haze, %	24.9
Rockwell Hardness	ASTM D-785 / ISO 2039-2		M-95

THERMAL	TEST METHOD	UNITS	OPTIX
Maximum Recommended Continuous Service Temperature		°F	170-190
Softening Temperature		°F	210-220
Melting Temperature		°F	300-315
Melt Flow Rate	ASTM D-1238	g/10 min.	1.5
Deflection Temperature @ 264 psi (1.8 MPa)	ASTM D-648 / ISO 75-2/A	°F	203
Deflection Temperature @ 66 psi (0.45 MPa)	ASTM D-648	°F	207
Coefficient of Thermal Expansion	ASTM D-696 / ISO 11359	in/(in-°F) x 10	3.0
Thermal Conductivity	ASTM C-177	BTU-ft/(hr-ft ² -°F)	0.075
Flammability (Burning Rate)	ASTM D-635	In/minute	1.019
Flammability	UL 94 / UL 94		HB
Smoke Density Rating	ASTM D-2843	%	3.4
Self-Ignition Temperature	ASTM D-1929	°F	833
Flame Spread Index	ASTM E-84		115
Smoke Developed Index	ASTM E-84		550